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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,234	11/25/2003	David W. Herbage	A310429.1US	6684

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Jerad G. Seurer
Wyatt, Tarrant & Combs, LLP
Suite 800
1715 Aaron Brenner Drive
Memphis, TN 38120-4367

EXAMINER

CLEMENT, MICHELLE RENEE

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,234

Applicant(s)

HERBAGE, DAVID W.

Examiner

Michelle (Shelley) Clement

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44 and 46-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44 and 46-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. With respect to applicant's arguments concerning the objections to the specification, it is noted that where the written description *only implicitly* or inherently sets forth the structure, materials, or acts corresponding to a means-plus-function, **applicant must clarify the disclosure to explicitly state**, with reference to the terms and phrases of the claim element, what structure, materials, or acts perform the function recited in the claim elements and equivalents thereof. (See MPEP 2181). Therefore applicant must amend the specification to provide explicit antecedent basis for the claimed subject matter including the claimed "means for" language included in the claims. Correction of the following is required: applicant must clarify the disclosure **to explicitly state, with reference to the terms and phrases of the claim element, what structure, materials, or acts perform the means for rotating, propulsion means, guide means, and internal control means** recited in the claim elements and equivalents thereof, **it is not sufficient that the specification implicitly describe something that would function as such.**

2. With regards to applicants contention that the invention of Becker is for weapons systems that are horizontally aimed, it is noted that Becker discloses a system that is capable of vertical launching.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Where the written

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description only implicitly or inherently sets forth the structure, materials, or acts corresponding to a means-plus-function, applicant must clarify the disclosure to **explicitly state**, with reference to the terms and phrases of the claim element, what structure, materials, or acts perform the function recited in the claim elements and equivalents thereof. (See MPEP 2181). Correction of the following is required: applicant must clarify the disclosure to explicitly state, with reference to the terms and phrases of the claim element, what structure, materials, or acts perform the means for providing (a zero-twist rifling, means for rotating, propulsion means, guide means, canard means, means for setting the azimuth recited in the claim elements and equivalents thereof.

Claim Objections

4. Claims 44-48 and 50-52 are objected to because of the following informalities: Claim 44 recites the limitation "the respective guide means of the tube" in line 10. There is insufficient antecedent basis for this limitation in the claim in that a guide means of the tube have not been previously recited.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 44 and 46-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (US Patent # 4,662,265), Gassler et al. (US Patent # 4,681,014), Grosso (US Patent

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5,425,514), Finkelstein et al. (US Patent # 3,245,318). Becker et al. discloses a system for supporting a launch tube comprising a base (reference 10) that can be used for supporting the system, a launch tube (reference 5) having a central axis, the tube can be oriented in any desired position including substantially vertically on the base, means for rotating (reference 21) the launch tube about its axis while disposed on the base, the tube is housed in an outer tube (references 1, 2 and 9) affixed to the base, rotation of the launch tube sets the launch azimuth orientation of the projectile. Although Becker et al. does not expressly disclose the system comprising a decoy cartridge and protrusion and groove, Gassler et al. does. Gassler et al. teaches a missile alignment system comprising a countermeasure cartridge (as defined by applicant at page 54, countermeasure cartridge contains payload containing one or more appropriate decoys such as but not limited to infrared and/or radar-reflecting decoys, any device utilized to at least generally deceive distract, divert, lead, and/or lure away an incoming threat, as well as *any device utilized to destroy or deactivate such an incoming threat*), wherein at a least a portion of the counter measure cartridge is disposable within the launch tube (reference 6), wherein one of the countermeasure cartridge and launch tube comprises a protrusion (reference 32) and another of the countermeasure cartridge and launch tube comprises a groove (reference 10) complementarily configured to accommodate the protrusion and wherein a length of the groove is substantially parallel to the reference axis at least when the countermeasure cartridge is disposed within the launch tube (i.e. means for providing a zero-twist rifling). Gassler et al. discloses that the purpose of the system is to eliminate rotational movement or rifling during on-loading of the missile. Becker et al. and Gassler et al. are analogous art because they are from the same field of endeavor: defense systems. It would have been obvious to one of ordinary skill

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in the art at the time the invention was made to combine the alignment system as taught by Gassler et al. with the launcher of Becker et al. The suggestion/motivation for doing so would have been to obtain a launcher that had decreased rotational movement during on-loading of the missile in order to decrease cable winding and increase precision. Although neither Becker et al. nor Gassler et al. expressly disclose the protrusion and groove as a zero twist longitudinal guide to effect non-rotational axial movement throughout a substantial portion of the launch, Finkelstein et al. does. Finkelstein et al. teaches a launcher comprising a guide (reference 44) and a groove attached to the missile to prevent rotation of the projectile during the launching stage (column 3, lines 35-45). Becker et al., Gassler et al. and Finkelstein et al. are analogous art because they are from the same field of endeavor: missile launching. Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the track and guide as taught by Finkelstein et al. with the system of Becker et al. and Gassler et al. The suggestion/motivation for doing so would have been to obtain a system that prevented rotation of the missile during the launching stage as suggested by Finkelstein et al. Although neither Becker et al., Gassler et al., nor Finkelstein et al. expressly disclose the decoy cartridge having canard means and the specific control means, Grosso does. Grosso teaches a controlled projectile (reference 110) for launch from a launch tube, the projectile (which can be used for counter measures) comprising a canard (reference 116) disposed thereon for adjustment of the pitch and trajectory of the cartridge during flight after launch from the tube. The cartridge further comprising internal control means (reference 120) preprogrammed for activation of a thruster and the canard. The projectile further including an onboard gyroscopic stabilization system to control at least one of roll, pitch and yaw of the projectile after launch, the gyroscopic

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stabilization system is linked to a database prior to launch whereby updated information is provided to the system. Gassler et al., Finkelstein et al., Becker et al., and Grosso are analogous art because they are from the same field of endeavor: defense systems. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the projectile as taught by Grosso with the launcher as taught by Gassler et al., Finkelstein et al. and Becker et al. The suggestion/motivation for doing so would have been to obtain a defense system that had a higher probability of hitting the target.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle (Shelley) Clement whose telephone number is 571.272.6884. The examiner can normally be reached on Monday thru Thursday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571.272.6873. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MICHELLE CLEMENT
PRIMARY EXAMINER